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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,287	06/11/2001	Leo Rademacher	12758-004001	5087
26161	7590	09/30/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/763,287

Applicant(s)

RADEMACHER, LEO

Examiner

YOUNG T. TSE

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-13 and 19-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 2-3, 5-13 and 19-27 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 19 September 2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because the block pertaining elements (12, 14 and 16) in Figure 2, elements (22, 24, 26, 28, and 30) in Figure 3, elements (22, 24', 26, 28, 30 and 32) in Figure 4 and elements (38, 42 and 44) need to have descriptive label, in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "SIGNAL STRENGTH ESTIMATOR" should be inserted into Figure 2 to properly describe element (26). Further, the specification on page 15, lines 14-15 states that 46 is a matched filter means, however, Figure 5 shows the reference sign 46 is an output signal of the correlator filter 44. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Specification**

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. Applicant is suggested to submit a substitute specification, an abstract, drawings and the original claims since the record shows no such documents have been filed other than the copies of the PCT/EP99/05632. The PCT/EP99/05632 seems include 19 claims, however, in the preliminary amendment filed 09 January 2002, there appears to be 18 original claims only.

3. The incorporation of essential material in the specification (page 17) by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

### ***Claim Objections***

4. Claims 1-3, 5-13 and 19-27 are objected to because of the following informalities:

In claim 1, lines 7 and 9, "strengths" should be "signal strengths"; line 9, "data detector" should be "data detectors"; line 10, "a user code for a first number of data detectors and a user code" should be "a first user code for a first user to a first number of data detectors and a second user code" (see claim 2 to avoid the antecedent basis of the first user).

In claim 7, line 1 and line 2, "said data detector means" and "the user specific codes" should be "said data detectors" and "the user codes", respectively.

In claim 9 (lines 3, 4, 9, 10-11, 11 and 12), claim 10 (lines 1-2), claim 11 (lines 1-2), claim 19 (line 4), claim 22 (line 2) and claim 24 (line 2), "data detector means" should be "data detectors".

In claim 9, line 7, "strengths" should be "signal strengths"; line 10, "a user code" should be "a first user code"; and line 11, "a user code" should be "a second user code".

In claim 13, line 3, "codes" should be "user codes".

In claim 25, line 1, "said data detector means further" should be "each of said data detectors".

In claim 26, line 1, "said combiner means further" should be "said combiner".

In claim 27, lines 2-3, "said signal strength estimator means" should be "said signal strength estimator"

Wherein the dependent claims 2-3, 5--6, 8, 12, 20-21 and 23 are depended upon claim 1 or claim 9.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 24-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 24 recites a signal re-generator means to re-generate radio signals associated with a first user seems not shown in the disclosure of the drawings and is unclear from the specification that which element(s) is the signal re-generator means. Wherein claim 25 depends upon claim 24.

Further, claim 26 recites the combiner comprises a joint detector means to cancel a detected data symbol from a composite symbol. Clearly, the original claims do not recite the claimed subject matter of claim 26 and the specification fails to mention the combiner comprises a joint detector means to cancel a detected data symbol from a composite symbol as shown in the data combiner 28 in both Figures 3 and 4. Therefore, the newly added claim 26 contains new matter.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2-3, 5-13 and 19-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed subject matter of claims 2 and 3 are in conflict with each other.

According to a communications system, in general, it will assign more of data detectors to a first user if the user having a stronger signal strength than a second user as recited in claim 3, not a weaker signal strength as recited in claim 2. Applicant is requested to clarify this matter. Also see claims 10 and 11.

In claim 9 (line 6), claim 13 (lines 2 and 3), claim 19 (lines 2 and 5), claim 20 (lines 1-2), claim 24 (lines 3-4), claim 25 (lines 2-3), claim 26 (line 2) and claim 27 (line 2), the phrases “the received signals”, “the received radio signals”, “the user data symbols”, “the received radio signal”, “said received radio signal”, “the estimated user data symbol”, “the re-generated signal”, “the received signal”, “the user data symbol”, “the plurality of user specific codes”, “the regenerated signal”, “the radio signal”, “the composite symbol”, and “said combiner means” all lack antecedent basis.

In claim 19, line 4, it is unclear what is meant by “the relative strength”?

Wherein the dependent claims 5-8, 12 and 22-23 are depended upon claims 2, 3 or 9.

#### ***Allowable Subject Matter***

9. Claim 1 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

10. Claims 2-3, 5-13, 19-23 and 27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.



11. Claims 24-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph and 2nd paragraph, set forth in this Office action.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that a receiver comprises a control circuit to assign user codes and temporal displacements to each of a plurality of data detectors according to signal strengths of radio signals to assign a first user code for a first user to a first number of data detectors and a second user code for a second user to a second number of data detectors having different temporal displacements of the first number of data detectors.

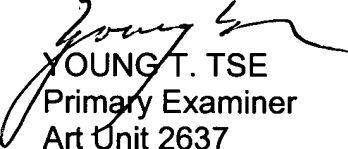
### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References Bi, Natali et al., Keskitalo et al., Yoshida et al., and Eberhardt are related to receiver circuits including a plurality of data detector or fingers, a signal strength indicator, a combiner circuit and a control circuit for receiving and converting data symbols from various users in CDMA communications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday and Wednesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2637